A

VIEW

OF SOME OF

DR SPURZHEIM'S LECTURES,

AS DELIVERED AT EDINBURGH, IN THE
WINTER OF 1816.

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By Dr Poole.

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Extracted from the Memoirs of the Phrenological Society.

Gentlemen, — In soliciting your attention, even at this distance of time, to the subject of Dr Spurzheim's Lectures, I feel myself under no necessity to apologize for intrusion; and, I am not ashamed to confess, I entertain the hope of experiencing something more satisfactory than your compassionate forbearance. The avowal of your belief in the substantial truth of the science of Phrenology, conveyed in the very fact of your being members of this Society, is ample warrant, for any individual of your number, respectfully to offer to your notice such matter and communications as have proved efficacious in enlightening and confirming his own mind, in regard to the system, or seem to him in any degree calculated to promote among others an interest in its cultivation and advancement. It is an expression of zeal, however feeble or unimportant its results, which indicates good intention at least, and therefore cannot fail of a patient reception on the part of those whose benefit, either by instruction or example, is professedly consulted. But, on the present occasion, I am not content to claim merely this common and incontestible privilege. You would justly censure me if I did. In the very attempt to preserve a memorial of one of the founders of our science, considered in the character of a public teacher,—to describe him as I well remember he was listened to and admired,—and, still more, to exhibit, with candour and fidelity, an outline of those doctrines, in the placid but fearless maintenance of which, he at once silenced the ignorant, disarmed opposition of its malignity, and carried conviction to the unprejudiced,—I cannot for a moment hesitate to assure myself of an approbation which has gratitude rather than politeness for its origin. I say so, unblushingly, because I am aware that the honour is fitting so humble an individual, no otherwise than from having enjoyed the felicity of being one of Dr SPURZHEIM's auditors, and feeling it impossible to resist the evidence of his singular deserts, or to close my eyes to the importance and verisimilitude of those facts and principles for which he so ably contended.

I have only to add, in the way of preface, that the Lectures of which I propose to give a view, were delivered in the Hall where the meetings of our Society are now held; that a numerous company, among whom were several ladies, repeatedly testified their satisfaction at the ingenious, spirited, and eloquent manner in which Dr SPURZHEIM explained and defended the object of his labours; that part of the summary which I have now the honour to read, was communicated at the time, and by desire, to one of the Journals of this city; and that, as the Lectures themselves contained the principles of the science which we are pledged to cultivate, it is probable that my remarks on them may be found of some use as an introduction to phrenological discussions.

Dr Spurzheim commenced by apologizing for his faulty pronunciation, and imperfect knowledge of the language in which he was about to deliver himself, and expressing his trust in the indulgent consideration of his hearers. But there seemed to be fewer demands on their favour or patience than he gave reasons for applauding him. Without the aid of notes, which a thorough acquaintance with his subject, and the habit of public speaking, had rendered unnecessary, he never failed to express himself in clear and forcible terms, free from embarrassment or affectation, and with the happy, but unassuming firmness of a man who believed that the importance and the truth of his discoveries and observations formed a sufficient claim to attentive regard, and would redeem those trivial and adventitious errors which he might happen to commit in declaring them. His illustrations were copious and striking, the product of a mind matured in useful learning; but still more indebted to the long and varied exercise of native discernment on the concerns and characters of mankind. This gave peculiar value to his remarks, in the judgments of persons who had learned to distrust the theories of the schools, and to wait, with some degree of patience, till an enlarged and well-arranged series of facts should warrant a degree of confidence in the opinions which he delivered. It may cost the admirers of certain established systems some sacrifice of feeling and pride, to admit the relevancy of the observations on which the new doctrines are founded; nor is it possible to think that the writings of those eminent men who have given celebrity to metaphysical science, in modern times, are far from elucidating the nature of our species, without lamenting the inutility, if not positive mischief, of so much ingenious and elegant labour; but he who aspires to the character of a philosopher must prepare himself to abandon prejudices, and to submit to the exclusive authority of demonstrable truth.

Dr Spurzheim, duly sensible of the truth of these remarks, and convinced, as he seemed to be, of the solidity of his views, and the weakness of the common arguments by which they had been impugned, cautioned his hearers against every kind of intellectual interference with the right and necessity of private judgment on those facts which he should adduce. His good sense, as might be expected, prompted him to extend a similar interdict to the possible influence which he himself might unintentionally produce on some minds, and which indeed those who had the pleasure of his acquaintance, or had derived instruction from his multifarious and interesting intelligence, might be thought not at all unlikely to experience. "Do not," said he, "believe any thing because I affirm it, nor, on the other hand, object to it merely because others have done so before. I may err, and others may err, but Nature is always true and constant. See and judge of her for yourselves." In the same spirit, and with the same propriety, he distinguished between the facts which he meant to bring forward, as at all events deserving to be held important in the study of the human character and constitution, and those inferences which he or others had drawn from them. The former, he affirmed, *must* be admitted, and accordingly, in regard to them, both he and his hearers were bound to identity of belief. But, with respect to the latter, especially in the present infancy of the science, some difference of sentiment might reasonably be anticipated, and certainly ought to be regarded without the admixture of angry passion, or a disposition to unprofitable cavilling.

Reflections to this effect, followed by some observations on the advantages of knowledge of every kind, and the particular importance of the science of mind, brought him to the statement of the nature and object of his Lectures. In the following remarks, by which I endeavour to record my own impression of these, I purpose, for convenience sake, generally to speak in the present tense; and I have only this farther to mention as preliminary, that altogether, his course furnished a rich intellectual treat, and seemed to produce the fullest conviction, that the establishment of a science, difficult, because complicated, and because it concerned the least known parts of nature, and hazardous, because opposed to established opinion, could not have been entrusted to more skilful hands; and that, whatever might become of the doctrine, it was morally impossible, I should think, for any one who heard its advocate, to entertain a doubt of his sincerity, or to call in question either the acuteness or the soundness of his talents.

The object of the science is not what it has often been asserted to be. No investigation into the *nature* of mind is even so much as attempted in it. We know no more of mind, as it is in itself, than we know of matter; and, accordingly, we must content ourselves with observations on the properties of the one, and the manifestations of the other, as presented through the medium of our bodily organs. No argument, it is evident, is thence to be drawn as to the materiality of the mind. Such a question is never once agitated in the system; far less does the system afford any thing like an approach to the affirmative, as has sometimes, most erroneously, been imagined. The doctrine, it is acknowledged, may be abused; but, in this respect, it does not differ from any other science, nor from any of the gifts of nature, all of which may be, and most of which have been productive of evil, through the depravity or the weakness of mankind. This may be particularly instanced in the professions of medicine and law, and in the religious feeling or propensity, which, however natural to our species, has often been perverted to persecution and the most disgraceful absurdities.

The object of the system, then, is the manifestations of the human mind, as dependent on, or connected with, organization. This dependence is assumed as essential, not to the existence, but to the manifestation of the mind, for we have no example of the operations or agency of the one, without the instrumentality of the other. Admitting, therefore, the constancy of this conjunction, it may be shewn, that the peculiarities of the organization are related to peculiarities of mind; and hence the system furnishes a foundation for what is commonly denominated Physiognomy. But the physiognomy to which it gives rise will be found to differ very widely from that of any previous philosophers. Here Dr Spurzheim thought it necessary to explain away the notion which had been entertained respecting the system, namely, that it undertook, from the organization, to conclude as to the actions of mankind. Nothing can be farther from the truth; and it is really strange, that those who have ventured to ascribe to it such absurd presumption, should never have been at the pains to consider the very first passage of Dr Spurzheim's printed work, in which it is expressly disclaimed. The utmost that is inferred is the existence and the constitutional predominance of those internal principles which lead to actions, whether of a moral or an intellectual nature.

The opinion, that the organization is intimately and invariably connected with the condition and character of mind, may be proved to be of older date than the present times. One singular evidence of this we have in the strange assertion of some of the ancients, that the mind created its habitation, and that this is in exact proportion to its own excellency. Hence the whimsical fancy that a deformed or defective mind had an ugly body, and *vice versa.* In modern times, similar sentiments have occasionally been entertained. Lavater, for example, sought for indications of character in the form of the features, conceiving that an aquiline nose, to take one instance, implied wit. Such observations, it is almost needless to say, are quite empirical, and, in fact, so discordant and fanciful as to yield no satisfaction to a philosophical inquirer. It cannot be necessary to multiply examples of erroneous methods of procedure, in the study of human nature, as the common reading of most persons furnishes ample proof of lamentable failures. But one allusion made by Dr SPURZHEIM, was too remarkable to be passed over, and ought to be mentioned as strikingly illustrative of the radical discrepancy between the foundations of this science, and the metaphysical systems both of past and present times. For the due cultivation of the philosophy of the human mind, it is requisite, according to one of the most popular, and certainly the most elegant advocate for the latter, now living, to retire to one's closet, and to attend exclusively and unremittingly to the objects of one's own consciousness. But, in reality, a thousand years may be spent in such a process, without a single advance or discovery being made, which ought to entitle the votary to commendation. The mind of man must be studied in company, amid the pursuits, the business, and the difficulties of life. It is true, the results of this more extensive inquiry may be less flattering, either to the individual inquirer, or to the species at large; but their superior importance will amply compensate for the loss of that splendour, in which the visionary recluse may contrive to array his creations. Nor are the difficulties so trifling, as to render success unworthy the exertions and ambition of the greatest genius. On the contrary, they are quite in proportion to the abstract and complicated nature of the subject to be investigated, and necessarily demand the exercise of cautious observation, and the full efficacy of inductive logic.

An important question now presents itself for discussion. What part of the animal frame is allotted as the organ of the mind, that by which it manifests itself, or operates on the rest of the system? Various considerations, and what we may call the method of exhaustion, besides the concurrent testimony of most philosophers, direct our attention to the brain, that mass of curiously wrought and singularly diversified matter, which occupies the interior of the bones of the skull.

The first proposition to be stated in respect to this organ, is, that without it no manifestation of mind has ever yet been known. Such, at least, is the decisive and unequivocal result of all our inquiries. The few apparent exceptions which medical men have witnessed, are all explicable by a peculiar change which the brain undergoes, in consequence of disease; but it is affirmed universally, that wherever mind is indicated, brain is found, though the converse of the proposition, it is needless to say, does not always hold true.

The second proposition, founded also on observation, is, that a certain quantity of brain is required for the manifestation of mind. In other words, a brain may be too small to admit of the usual manifestations of mind. This is ascertained to be the case in by much the greater number of persons born idiots, provided, it is necessary to mention, there do not exist water in the brain; a disease which often, and more particularly in young subjects, occasions a preternatural enlargement of the head. Dr SPURZHEIM's remarks on this proposition were peculiarly interesting, and may readily be verified by an examination of the unfortunate creatures who, from infancy, have required the constant care, or mortified the feelings of humanity. Here, it is proper to mention, that in many cases of water in the head, the manifestations of the mind are still carried on, at least for some time. The most singular one hitherto met with by Dr Spurzheim, was that of a person then living at Musselburgh, whose head was considerably larger than any other in whom the mind had continued to manifest itself.

In the third place, it may be remarked, that, other circumstances being alike, the manifestations of the mind bear a proportion to the size of the brain. But here it is necessary to guard against mistake. The best way of doing so, perhaps, is to state, that size is only *one* of the conditions on which the manifestations depend;—or, in the language of mathematics, it is one of the terms of an equation; and that there are other conditions, all of which require to be known before any special conclusion is warranted. But, universally, it may be affirmed, that men, remarkable for the versatility and general scope of their genius, that is to say, for an aptitude to excel in whatever they engage themselves in, have large brains, and these are so distributed as to give great fulness to the fore and upper parts of the head. This may be instanced in the case of Lord Bacon, with whose cast we are all familiar. But the converse of the proposition, it ought to be carefully remembered, is not maintained. All that is asserted is, that persons displaying universal genius in a high degree, possess large brains, arranged as has been mentioned; but that there may be, and are examples of large brains, where universal genius, or a great and wide range of talents, has not been manifested. It can easily be understood, indeed, that the consistency of the brain—the temperament of the constitution—the degree of exercise of the talents—and other circumstances, are likely to have a certain influence. The ancients, it may be remarked, were at one time extremely attentive to the conformation and size of the head in different characters, as is strikingly displayed in the casts from some of the remains of their sculpture. That of the Gladiator, for example, varies extremely from that of one of their wise men—and Jupiter from the rest of the gods. The differences quite coincide with the remarks now made. But the ancients were not always equally considerate. We have a striking evidence of this, in a cast from the far famed Venus, which displays a size of head probably never met with, except in the case of a person an idiot from birth, and who will continue so till death. Modern artists will sometimes be found equally good authority; but it must be confessed, that a proper understanding of the connection of the mind with the organization, would materially assist them in doing justice to their subjects. The poets, who are most remarkable for their fidelity to nature, have not been inattentive to the differences now alluded to. SHAKESPEARE, for instance, speaks of "foreheads villa-"nously low,"—and MILTON, describing, on the other hand, our first parent, is careful to notice "his fair large front." The portraits of these two illustrious men, it may be added, are no inadequate evidences of the truth of the proposition contended for.

When it is affirmed that the brain is the Organ of the mind, it is meant that it is *exclusively* so; that no other parts of the system are employed as its instruments, however they may be subject, as they often are, to its influence. Again, when the Manifestations of the mind are spoken of, the expression is not confined to the intellectual faculties only, but comprehends also the whole of the emotions, feelings, propensities, and sentiments—in fact, every thing by which a sentient and intelligent being is distinguished, and which cannot, without absurdity and contradiction to the fundamental laws of philosophising, be considered as the property of matter. In the broad assertion of these opinions, this doctrine differs widely from most, perhaps from all of its predecessors. That the intellectual faculties were seated, to use the common, but surely very objectionable phrase, in the brain, was a proposition early maintained by philosophers, and for which also, many of the moderns have contended. It is certainly an established topic in popular belief; but those who admitted it, differed extremely as to the precise region of the brain which was entitled to pre-eminence. If it were not too serious a reflection on philosophers, one might be apt to take amusement in the history of their controversies on the subject; and, in reality, so thoroughly have the pretensions of the candidates been demonstrated and disproved by their respective advocates and opponents, that one might be warranted in saying, if he had no other guide, that every part of the brain, and that no part of it, is the seat of the soul, and that it is perfectly endless to make any inquiry about the matter! But, admitting the correctness of any one of these opinions, it is certain that philosophers, almost without exception, conceived the affections, sentiments, and feelings, to have a separate habitation from the intellect. The learned and unlearned appear to have agreed in ascribing these to the viscera, though considerable dissension has existed, at various times, as to their peculiar allotment. Thus the heart, the stomach, the liver, the spleen, and other parts, have all had their respective inmates. Now, either these are very erratically disposed, and change their quarters with the climate, or the whole system of popular belief on the subject is fundamentally erroneous; for the opinions and language of different ages and countries materially differ respecting the distribution and arrangement of those intellectual and moral powers, as might easily be shewn by quotations from the classics, contrasted with modern authors. But it is unnecessary to have recourse to such a mode of reasoning. The common opinion is utterly untenable, as might easily be proved on other grounds, particularly comparative anatomy and physiology.

There are animals, for example, which display certain passions and propensities, though destitute of the organs, on which, according to this opinion, they are dependent; and, on the other hand, there are animals which possess certain viscera, though they do not display those affections and sentiments with which these are supposed to be endowed. There is no discoverable proportion, in any animals, between the size of their viscera and any of the alleged products. Moreover, animals with similar viscera, have nevertheless very different inclinations and powers; and examples might be mentioned of similar inclinations and powers with different viscera. It is an established principle in physiology, besides, that the viscera have each but one function to perform; and the history of disease testifies the occurrence of great and even fatal derangements in several, if not all of them, without any corresponding diminution or decay of their alleged inmates.

The opinion now contested, is often endeavoured to be maintained in another manner; to which it is necessary to pay some attention, because of its apparent and generally admitted correctness. The heart, it is said, is assuredly the seat of the affections and passions, because we are perfectly sensible of peculiar feelings and motions in it, whenever these affections and passions are excited. And something similar may be affirmed occasionally of other viscera, as the experience of every individual testifies. We have never seen greater justice done to this argument, which, beyond all doubt, has been universally credited, than in the words, somewhat quaint indeed, but abundantly explicit and pointed, of an old but meritorious author, who may be adduced *instar omnium* as a reasoner on the subject. The passage is a choice example of a mode of philosophising, to which many moderns, professing adherence to the highest authority in matters of science, have not been ashamed to give sanction by the fidelity of their imitation.—" A question " may be demanded, and not easily resolved, Whether the " faculty of our sensitive appetite hath allotted unto it some " peculiar part of the body, where she exercises her proper " functions and operations? for, as we see by experience, " the facultie of seeing, the power of hearing, the sense of " smelling, tasting, and touching, have assigned unto them " divers corporall instruments, habitations, or seats, where" in they see, heare, smell, tast, and touch; as eyes, eares, " nose, tongue, flesh, and sinews. Now, the question pro" pounded is thus to bee understood, Whether may there " be determined any part of the bodie, wherein peculiarly " the passions of the mind are effected? To which que" stion I answere, that the very seate of all passions is the " heart, both of men and beasts; divers reasons move me " to this opinion. First, The very common experience, " men trie daily and hourely in themselves—for who loveth " extremely, and feeleth not that passion to dissolve his " heart?—Who rejoiceth, and proveth not his heart di" lated?—Who is moved with heaviness, or plunged with " paine, and perceiveth not his heart to be coarcted?— " Whom inflameth ire, and hath not heart-burning? By " these experiences, we prove in our hearts the working of " passions, and by the noise of their tumult, we understand " the worke of their presence. The second reason is, be" cause, as our sensitive apprehension hath her seat in the " braine (for we all prove, that, in understanding, we es" pecially bend the force of our soule to the former part " thereof) so the affections and passions, in proportionate " manner, must have some corporall organ and instrument, " and what more convenient than the heart? For, as the " brayne fitteth best, for the softnesse and moysture, to re" ceive the forms and prints of objects for understanding;

"even so the heart, endued with most fiery spirits, fitteth
"best for affecting. Lastly, For what other reason, in feare
"and anger, become men so pale and wanne, but that the
"blood runneth to the heart to succour it *."

Such is the substance of the popular creed, as held forth, with various modifications, in the current language of most countries, and adopted extensively as the basis of the physiology of the passions. How erroneous and inadequate it is, it would not be very difficult to demonstrate.

Our sensations are often very uncertain indications of the causes by which they have been excited, or of the places to which those causes are applied. All the parts of the body are in connection with each other by means of nerves. Hence it is that changes of feeling are propagated throughout the whole. This takes place so rapidly at times, that the sensations themselves, and the perceptions of the properties or qualities of the external substances which have occasioned them, are confounded together in the imagination. In this transmission of feeling, if the phrase may be allowed, there is often no diminution of force; but, on the contrary, it sometimes happens, that a distant part is much more affected than that in which the excitement was first produced. Medical men are well acquainted with instances of this kind, and are in the habit of detecting diseases at considerable distances from those places in which the patients feel most uneasiness. Thus, obstructions in the liver are frequently accompanied with severe pain about the shoulders, although the region of the liver itself is not materially affected; a degree of pain, felt in a certain part of the skin of the belly, so great as to attract the whole of a person's attention, is not unusually the chief symptom of a

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* The Passions of the Mind in General, by THOMAS WRIGHT, London, 1630.

calculus in the ureter; a very distressing affection of the leg and thigh is the consequence of a similar disease; aching of the limbs is often produced by a disordered state of stomach; indigestion sometimes occasions headache; and the presence of worms in the intestines, causes itching of the nose. The mere circumstance, therefore, of our experiencing certain feelings about the heart or other viscus, is not of itself sufficient proof that the causes are situate there, or that these viscera are their organs. There are still more familiar examples which prove the absurdity of ascribing certain affections and feelings to the parts which are apparently most influenced by them. Sorrow will cause a flood of tears; anger or fear will make the knees tremble; a sense of shame occasions a redness of the cheeks; the recollection of an injury quickens the motion of the blood. But who ever thinks that the lachrymal gland is the seat of sorrow,—that anger and fear reside in the knees,—that the cheeks are the organ of shame,—or that the memory is any way concerned in the circulation? Every person must be aware of the fact, that in all these, and many other cases, the mind is first affected; and hence it can readily be believed, that the parts which are ultimately brought into action, are so through the medium of its organ, although the precise mode in which the effects follow the causes may never be perfectly understood. If the least doubt remain on the subject, it may perhaps be removed by a single remark or two, calculated to direct attention to the circumstance of the previous emotion of the mind.

If a man be brought suddenly and unexpectedly to the brink of a precipice, a degree of fear sufficient to make him tremble instantaneously seizes him. But a person who is blind, and has not otherwise been apprised of his danger, would probably go on without the least uneasiness; the most pathetic story told to the deaf excites no emotion in his mind; and the most opprobrious words addressed to a person who is ignorant of the language, will not stir up his anger. In these, and a thousand other instances which might be mentioned, it is quite manifest, that the exciting causes operate only through the mind, which again, so far as we know, produces all its influence by the organization. Finally, it is possible to point out the identical nerves by which the brain and various parts of the body are connected; and it is a matter of daily observation, that when these nerves are diseased or wounded, so as to interrupt the connection, though all other circumstances remain the same, the mind no longer manifests itself by or in those parts. A certain degree of animal life, in other words, may be carried on for a time, without the slightest display of either intellect or feeling. The discussion of this interesting subject, which is scarcely accessible in all its bearings to the general reader, is entered into at length in Dr Spurzheim's larger work.

The chief objections to be mentioned, are certain facts of injuries done to the brain not having interfered with or prevented the manifestations of the mind, from which it is inferred that that organ is not essential to their production. These facts are admitted to have occurred; but, when accurately considered, do not in the least contradict the opinion maintained, any more than similar facts as to vision having been carried on with one eye, after the destruction of the other, or hearing with one ear, demonstrate that the eyes and ears are not the organs of their respective senses. The same explanation is to be given in the cases alluded to. In reality, the brain is a double organ, as is manifest on dissecting it; and hence it is easily to be understood, that parts of it situate on one side may be diseased, or actually lost, as has sometimes happened, and yet that the manifestations of the mind may be carried on by its corresponding parts, which are situate on the other side. No valid argument, then, can be drawn from such facts against the doctrine, whilst, on the contrary, some others which might be adduced in greater number, of the loss of the faculties of the mind consequent on injuries done to the brain, are entitled to the fullest authority in its support. It is quite conceivable, on the principles of this doctrine, that the whole of one of the hemispheres of the brain may be destroyed, and that the other shall continue to manifest the mind; but it is most positively denied that ever both hemispheres were destroyed, or any loss or disease of corresponding parts in them sustained, without its total or partial disappearance. Besides this general reason for the inadequacy of the facts which have been mentioned in opposition to the doctrine, it is proper to remark, that great inaccuracy has been often committed in relating them, or rather in the opinions which have suggested them, and the deductions to which they have given rise. Such reports commonly affirm, that the person continued to walk, to eat and drink, to know his acquaintances, to recollect events, to exercise judgment, to carry on his business, &c.—undoubted evidences of mind indeed, but not by any means all the manifestations of which it is capable, or all which the persons formerly displayed. A metaphysical error, afterwards to be exposed, lies at the very foundation of all such reports, in virtue of which, it is imagined, that indications of consciousness, memory, judgment, are competent proofs of the existence of certain general faculties so denominated. No wonder, then, that the reporters contented themselves with their conclusions, and did not proceed to make inquiry as to the loss or injury of special intellectual and moral powers.

After a wide, and it is believed, unexceptionable induction, therefore, there seems good reason for crediting the fundamental proposition of this doctrine, that the brain is exclusively the organ by which the mind manifests the whole of its powers; and that, without it, no manifestations ever have been, or can be exhibited. An important question now arises:—Is the brain one single organ, or does it consist of as many particular organs as there are primitive powers of mind?

Both opinions have been entertained, almost from the earliest dawn of philosophical inquiry. Dr SPURZHEIM has specified upwards of thirty authors who have written either expressly or incidentally on the subject, and who may be divided, pretty equally, into two parties—one which asserts the singleness or individuality, and another the complex nature or plurality of the organ of the mind. We are prepared to expect that he joins with the latter. A sketch of his reasons may not prove unacceptable.

It is generally observed, that nature employs various means of accomplishing various ends, and multiplies resources without limit, as the occasions for them demand. Thus, plants are differently organized, suitably to the differences of their products; animals are modified so as to correspond with the variety of conditions and circumstances in which they are found; there is a particular organ provided for every one of the animal functions; and the organs of the five external senses are distinct and independent of each other. It is very presumable, on analogy, therefore, that all the internal functions and powers are accommodated with separate and properly adjusted organs.

Again, on the supposition which is here conceived to be proved, that the brain is the organ of the mind, it might have been expected *a priori*, that the brains of different animals should differ, because it is certain that their faculties and propensities do so. Now, it is actually found, that their brains differ no less than their faculties, and the instruments of voluntary motion with which they are furnished. In general, the brain becomes complicated in proportion to the extent and variety of the functions; and this appears to be so well established as a law of nature, that different individuals of the same species, and even the same individuals in different stages of their growth and duration, shew differences in cerebral organization. All this is easily explicable on the principle that the brain is a complex organ, or rather a combination of organs, each of which has its own office to perform in the animal economy.

Farther, it is certain, that the same individual manifests some propensities and powers in a high degree, while others are scarcely discoverable in him, though quite natural, or frequently belonging to his species. One man, for example, has an excellent memory as to words, but is utterly unable to carry on a process of reasoning on any abstract or philosophical subject. Another displays a genius for painting, but is insensible to the beauties of music. A third excels in mathematical science, but has not a particle of taste for poetry. These, and many more peculiarities, seem utterly irreconcilable with the notion, that one identical mass of brain presides over all the functions; but it is easily understood, on the supposition contended for, that the organs are as various as the functions. Indeed, the former opinion seems no less absurd than the belief, that one organ answers all the purposes of the five external senses.

Something similar to what has now been mentioned, and equally susceptible of explanation on the same grounds, is the fact of the propensities and faculties not appearing or disappearing simultaneously, but some earlier than others. This cannot be reconciled with the opinion, that all the manifestations of the mind depend on one organ. Other considerations might be added, tending to the same point. Thus, change of study, or of the object and kind of attention, relieves the sense of fatigue;—in the state of sleep, some of the organs occasionally continue active, whilst the others are at rest, which constitutes the phenomenon of dreaming, and, in certain peculiarities of body, that of somnambulism:—in some diseases, the manifestations of the mind are partially deranged; or, in other words, some of the mental organs are disordered, while the rest remain sound.

On the whole, then, it is thought demonstrable, that the brain is not one organ, but a combination of many organs, and that every one of these is destined to a particular kind of manifestation of mind. It is now to be inquired, If these organs can be determined or pointed out? The investigation thus suggested is not a new one, but perhaps has never hitherto been properly conducted.

Some philosophers have concluded, that the functions of the brain are proportioned to its absolute size; and that the superiority of man is the result of his possessing more brain than any other animal. But this assertion is incorrect. The whale and the elephant have larger brains than he has, but surely do not equal him in intellect. Moreover, monkeys and dogs surpass the ox and ass in the extent of their faculties, but have far less brains; and many animals which have equal sized brains, differ essentially in kind and degree of faculties. This opinion then gave way to another, that the faculties are in the proportion of the relation of the size of the brain to that of the body. According to this, the superiority of man depended, not on the absolute, but the relative magnitude of his brain. But even this is incapable of being maintained, unless it be allowed that sparrows, linnets, and many other birds, which have larger brains in proportion to their bodies, surpass him in intellectual powers; and that, for a similar reason, rats and mice excel the horse, the dog, and even the elephant. To which may be added, the fact of children having larger brains, in proportion to their size, than adults. Other comparisons have been proposed, in order to determine the question, as between the size of the brains and that of the nerves, or between the former and that of the spinal marrow. These seem to hold more generally true, but are nevertheless liable to insuperable objections; and, at all events, being only practicable on the dead subject, can be of no use whatever as a foundation for physiognomical science.

The celebrated CAMPER proposed another mode of ascertaining the degrees of intellect, not only in man, but also the lower animals. It is perfectly fanciful; but, being ingenious, and corresponding with a vast number of facts, has obtained the approbation of many eminent men. The name of the *facial angle* is given to it, because, a vertical line being drawn from the upper lip to the most projecting point of the forehead, and a horizontal one running in the direction of the plane of the edge of the upper teeth towards the opening of the ear, it is conceived, that the understanding of animals is in the proportion of the obtuseness of the included space. But, although all the faculties of the mind had their organs in the fore part of the head, this facial angle would be an unfair and erroneous method of estimating them, as might be shewn on anatomical grounds. It becomes more evidently objectionable, when, admitting its application to the measurement of the forehead, it is discovered to be totally inapplicable to the lateral and posterior parts, in which, however, a very large portion of brain is commonly found. Another angle, called *occipital*, from the name of the bone to which it is referred, and proposed by DAUBENTON for a similar purpose, is not more to be trusted to.

CUVIER and others have compared the different parts of the brain together, with the view of determining their functions: but the results will be found often in contradiction to the best established facts, and are, therefore, in this respect at least, undeserving of confidence.

The anatomical structure of the brain has been explored, in order to point out the intellectual organs; and it has often been reported, indeed, that this new doctrine is founded on the results of such an examination. But this is not the case. On the contrary, Dr SPURZHEIM is of opinion, that anatomy seldom affords light as to the functions of any of the organs, and affirms most positively, that a knowledge of the structure has not led to that discovery. The reason seems obviously to depend on the fact of our total inability to explain the phenomena of living beings, a single step beyond the laws of matter, whether mechanical or chemical. As far as these go, we can proceed with a probability, perhaps a certainty of success; but, soon or late, we come to a point where all our knowledge fails us, and inquiry only demonstrates the insufficiency of our means of advancing. This occurs sooner in some cases than in others, but is universally met with in that region which distinguishes an animated being from a dead carcase. The structure of the eye is admirably contrived, on the principles of optics, to receive rays of light, and the figures of bodies. But who, after tracing them to the retina, on which their inverted images are formed, can explain in what manner the optic nerve is necessary to the information of the mind, as to the existence of their prototypes in a very different state externally? We can pursue undulations of the air to the membrane of the ear, and imagine them echoing through the mazy vaults of that curious fabric; but does this satisfy our minds as to the whole process of hearing? Far from it. We are more perplexed than ever, to account for the perfection and excellence of that sense. Now, in these two examples, it will be allowed, an aid has been lent to anatomy, which it does not ordinarily enjoy. We find, accordingly, that, though prosecuted to the utmost, it merely shews us the relationship, or adaptation of parts, to the functions which have otherwise been discovered. The best proof of this, perhaps, is the circumstance of there still existing several organs in the body, whose functions are unknown, although their anatomical structure have been no less diligently explored than that of other parts. It is perfectly conceivable, that the brain may be in the like predicament; but hitherto, it is presumed, no anatomist will declare that it is so. It may be possible, notwithstanding, on other grounds, to determine the organs of which it consists; and this is actually affirmed to have been done, in certain cases at least, by the labours we are now considering. It remains for succeeding inquirers to point out, in respect of them, as in other organs, the relation between the structure and the functions thus discovered. In the mean time, it is maintained by Dr Spurzheim, that neither human anatomy nor comparative or animal anatomy, has promoted, in any remarkable degree, the physiology of this puzzling member.

A system of mutilating and torturing has been practised on living animals, by other philosophers, in the hopes (scarcely cogent enough to vindicate the barbarity) of determining the functions of the brain. The principle is that of removing various parts of it, in order to see which of the faculties were impaired or destroyed *. Among other obvious objections to any deductions from such a process, what was formerly noticed as to the doubleness or duplicate nature of the organs, ought to be remembered; and also

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* A report by the celebrated Cuvier to the Academy of Sciences on some experiments of M. Floutens, of the nature here alluded to, has lately been published in Paris; but the results scarcely justify the means employed in attaining them.

that source of error which has been alluded to, the supposition that there exist general faculties answerable to the abstract terms, imagination, memory, &c. There is not the slightest occasion for these violent operations. Nature has been a more merciful, as well as a more skilful experimentalist, and has actually, in a vast variety of ways, and on a large scale, produced examples of brains, comparatively speaking, defective. Some of these are afterwards to be contemplated.

The principle assumed by Dr Spurzheim, is, that "the "energy of the functions of any organic part depends on "its size, and on its organic constitution." But it is proper to add, that, in judging of the degree of activity of the faculties, he admits the necessity of considering "the exer-"cise of every faculty, and the mutual influence of the "faculties upon each other." It is obvious, however, that it is on the size of the organs, whatever or wherever they may be, that he chiefly depends, as more easily observed than any of the other conditions, and in reality sufficient of itself to determine the nature of the functions.

The principles of the method now proposed, abstracted from the arguments by which they are defended, may be summed up in a few words. The different parts of the brain, considered, as has been mentioned, a combination of various organs, are differently developed; the functions of those which are most so, are conceived to manifest themselves with more energy, those of the parts which are least developed, being correspondingly less active. The development of the different parts of the brain is conceived to be appreciable by respective modifications of the bones which include and protect it: and hence, from these modifications, it is asserted to be possible to infer the functions themselves, and therefore, in a great degree, the propensities, talents, and characters of individuals. But though this be a gen[illegible] view of the system, it is essential to notice, that it requires most materal qualifications and explanations.

First, Let it be understood why the form and size of the head are imagined to be indicative of the dimensions and conformation of the brain. This subject is discussed by Dr Spurzheim, in his reply to the question, whether it is the skull or the brain which determines the form of the head? The following statement will afford some information to the general inquirer, though it can have little pretensions to the regard of professional men.

The brain exists, in the *earliest* stage, before it is covered by the skull, enveloped in a kind of membranous bag, which is fourfold, and exactly represents its form. The outermost fold is of a gristly nature, but gradually assumes a bony consistency, though with different degrees of rapidity in different places; so that, at the time of birth, about eight bones may be discerned in it. These are commonly connected together by a kind of articulation called Sutures, in such a manner as to preserve and indicate the exact size and form of the brain. Any compression or alteration of shape which the head undergoes in birth, is usually of very short duration; and, in all probability, at least in general, makes no difference in the relation between the brain and the bones. So far, therefore, it is fairly imagined, the brain determines the form of the head, and not the bony covering; and, it may well be doubted, if any after process, in the ordinary course of nature, invert this law. Dr Spurzheim has particularly investigated this point in all its extent, and gives very satisfactory reasons for the inference now stated, which is clearly of fundamental importance to his system.

Secondly, We must distinguish between the neat size of the skull, and the gross dimensions of the head. The former alone is of moment in this system. Inattention to allow for and except several things, which serve to make up the latter, will infallibly produce mistake in determining the developments. It is necessary also to be acquainted with the common size of the head, so as to be able always to notice, at first view, whether any one is larger or smaller than usual; and certain irregular and accidental bony excrescences and elevations must not be confounded with the characteristic signs of the organs. There are even some protuberances constantly met with, because destined to particular uses in the animal economy, which have no manner of reference to the development of the organs; and are consequently not to be taken into account, though, by affording some direction as to their situations, they may aid the investigation:—of some of these, it is important for the unscientific student to be early apprised, lest he should err in the very outset. The necessary information on this subject, and on the peculiar anatomical construction of the bones of the skull, from which it has been alleged there arise invincible objections to the practice of the system, is given in Dr SPURZHEIM's work. It is enough to allude to them at present. All that it is requisite to add here, is, that results of the examination of the head cannot generally be relied on, after the individual has reached that period of life, different in different persons, when the brain begins to diminish in size. The most certain indications are given at those ages in which the faculties have the greatest degree of activity. Sight and touch are required to determine all the organs, but one of them is sufficient as to several. The eye is more generally useful, and would alone be adequate, if the skull were completely exposed. A good many difficulties are occasionally to be encountered.

Thus, though one organ is much developed, and the neighbouring ones are not so, it is very easy to come to a conclusion as to the former; yet it sometimes happens, that several organs in the vicinity of each other are equally or proportionally developed; so that, in place of a protuberance, from which the indication might be taken, a smooth or regular surface is met with. Some difficulty is now and then presented, by what are called the frontal sinuses, certain cavities situate within the two plates of the bone of the forehead, a little above the root of the nose, and which, in some persons, are so large as to occasion a kind of crest or ridge on that part of the face. The organs, too, which are placed behind the orbits of the eyes, are not readily distinguished. But the greatest difficulty is said to arise from the circumstance of any one organ being so extremely developed, as to push the neighbouring organs from the places usually occupied by them. Into the consideration of these and other perplexities, I cannot now enter.

Thirdly, It must not be imagined, that it is the mere surface of the brain which constitutes the organs. On the contrary, these are conceived to extend downwards throughout the whole, or nearly the whole mass of the brain. It is possible, too, that there may exist organs, no part of which approaches to the surface, as it is certain that there are convolutions in the brain so situate as not to contribute directly to the external form. But Dr SPURZHEIM gives it as his opinion, without attaching much weight to it, that a great part of every organ, stated as ascertained, lies at the surface, and that, at all events, if one part of an organ be much developed, the whole of it so participates in the development, as to be appreciable in the external configuration and size.

Lastly, It is admitted that there are cases in which it is impossible to determine the size of the brain in general, or of its individual parts, from the dimensions or the form of the head. Thus, the brain may be diminished from age, though the external size and form remain nearly the same; in which case, the skull itself becomes thicker than formerly. A similar change is sometimes found in cases of insanity; and, it is probable, that certain diseases of long continuance may prove no less destructive of the ordinary indications.

Some considerations of a still more general nature, affecting the very foundation of metaphysical science, and leading to very singular and highly important results, now demand our regard.

The nature of man is to be studied in the same manner as that of other created beings. It presents two subjects for examination, namely, bodily structure and functions; the former constituting the object of anatomy, and the latter the objects of physiology. Taken in its largest extent, this study might be directed to four points. 1*st*, The structure of the whole body, and of each of its parts. 2*d*, The functions of the whole, and those of the parts. 3*d*, The mutual influence of the parts and functions: and, 4*thly*, The relations which men bear to one another, and to all the beings around them. How wide a field this is, and how important to mankind, need not be mentioned. In the science of Phrenology, we confine our attention chiefly, if not entirely, to those functions which take place with consciousness, and to those peculiarities in the structure or organization, by which they are manifested. Here, then, no inquiry is hazarded into the nature of Spirit, of which it is conceived to be impossible to obtain any knowledge otherwise than as it is manifested through the instrumentality of gross and material agents. It would be equally vain, it is believed, to attempt to investigate the nature or essence of Matter; and hence, therefore, structure and functions alone claim our regard. " We never (says Dr SPURZHEIM) ven-

"ture beyond experience. We neither deny nor affirm "any thing which cannot be verified by experiment. We "do not make researches either upon the dead body, or "upon the soul alone, but upon man as he appears in life. "We consider the faculties of the mind, only so far as they "become apparent to us by the organization. We never "question what the moral and intellectual faculties may be "in themselves. We do not attempt to explain how the "body and soul are joined together, and exercise a mutual "influence. We do not examine what the soul can do without the body. Souls, so far as we know, may be united "to bodies at the moment of conception, or afterwards; "they may be different in different individuals, or of the "same kind in every one; they may be emanations from "God, or something essentially different. Hence, whatever metaphysicians and theologians may decide in respect to all these points, our assertion concerning the "manifestations of the mind, in this life, cannot be shaken." A practical steady adherence to the spirit of these declarations must at least exclude one source, and that a very abundant one, of unavailing controversy.

The first thing that strikes an observer, proceeding on the plan, and according to the restrictions now suggested, is, that the manifestations of the mind seem to be somewhat different in the two sexes, in different individuals, and in the same individuals at different ages. These differences, too, are met with, in spite of the uniformity of education, opinion, customs, professions, and employments. One person has obviously more capacity, and a greater inclination for one pursuit than for another. This is found even in children; and differences of this kind are no less remarkable than those peculiarities of feature and expression by which mankind are commonly distinguished. It is farther observable, that all the manifestations of the mind do not, by any means, occur at the same period of life. Some are presented earlier, some later, in the history or progress of individuals; and the times of disappearance of the faculties and propensities are at least equally various. How are these modifications to be explained? Certainly not without taking into account the successive and probably connected changes in the organization.

LAVATER and others imagined that the whole body determined the manifestations of the powers. But it is objected to this idea, that there is often no discoverable harmony among the different parts, nor any proportion between them and the entire system. In opposition, therefore, to the physiognomical hypothesis of that ingenious but assuredly fanciful writer, Dr SPURZHEIM maintained, that all the parts have their own specific functions; that these functions depend on the healthy state and action of the corresponding organization; and that it is only in so far as their related organizations are dependent on each other, that the parts mutually contribute to one another's functions. There is no evidence whatever, in short, that the manifestations of the mind depend at all on the size and shape of the whole body; and, in general, it is remarked, in opposition to such an opinion, that little or short persons display, comparatively or proportionally, more intellect than large or tall ones.

The organic constitutions, or what are called the physical temperaments, have been advanced by other authors, both in ancient and modern times, as that on which the faculties depend. But this is a theory which may be proved to be no less erroneous, though, it must be admitted, that these temperaments appear to occasion very different degrees in the activity of the faculties. A very slight examination will convince any person, that similar manifestations of mind,—similar, that is, in kind, frequently exist in different temperaments, and that very different manifestations are frequently found in the same sort or species of temperament. In point of fact, then, there is no discoverable proportion whatever between the vital functions, which are chiefly affected by the temperaments, and the faculties of the mind; and, therefore, none between the temperaments and the faculties. " A man (says Dr " SPURZHEIM justly) may be well nourished and active, " and yet at the same time either stupid or intelligent. " Many persons who have a melancholy look, are not at all " melancholy;—we find sanguine and bilious individuals, " who are intellectual or stupid, meek or impetuous;— " and we may observe phlegmatics of a bold, quarrelsome, " and imperious character. In short, the doctrine of the " temperaments, as applied to the indication of determinate faculties, is not more sure, nor better founded, than " is divination by the hands, the feet, skin, hair, ears, and " similar physiognomical signs."

MALEBRANCHE was of opinion that the differences in thinking and feeling, as exhibited by men and women, depended on the differences in the degrees of delicacy in the fibres of their brains; and Dr MANDEVILLE, the author of the " Fable of the Bees," apparently entertaining a similar notion, argues stoutly for the superiority of the fair sex, on the ground that they are the *finest* specimen of Nature's workmanship. Perhaps the poet BURNS, very allowably in his profession, adopted the same complimentary fiction, as may be gathered from one of his most popular songs:—

> " Her prentice hand she tried on man,
> " And then she made the lasses."

But this is mere idle conjecture, unauthenticated by observation, and which only requires to be noticed, in order to ensure its condemnation.

It is time now to specify the mode in which Drs Gall and Spurzheim proceeded, with the view of determining the functions.

The Society have already heard *, that Dr Gall, the founder of this new science, early noticed certain differences of faculties and propensities in the members of his family, and among his school-fellows. He was grieved to find that several of them greatly excelled him in the facility with which they learned their lessons by heart; but, on the other hand, he had the satisfaction to perceive, that he was their equal, if not their superior in the powers of reflection and reasoning. The observation that, in those persons who had good verbal memories, the eyes were particularly prominent or full, was the foundation and commencement of his inquiries into the relation existing between the bodily structures and the mental functions: and these inquiries he was the more induced to prosecute, in consequence of observing, during his subsequent study of medicine, that the functions of the brain were not well understood, if understood at all, by the profession. It now occurred to him, in following up his original remark, that it was very possible the faculties of the mind might be distinguished by the conformation of the head.

But the notions as to metaphysical subjects, which he had acquired in the schools, for some time obstructed his inquiries; or, more strictly speaking, directed them into a wrong channel. He had been led to believe in the common doctrine, that there existed certain general intellectual faculties, such as memory, judgment, and imagination; and, accordingly, he naturally looked for the signs of such, in the size and the form of the head, without ever being aware or suspecting that these were creatures of metaphy-

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* Preliminary Dissertation, pp. 2—7.

sical abstraction, merely logical distinctions, which have no more status or reality of existence than any other of the ideal objects designated by general terms, and without knowing, on the other hand, that the feelings and sentiments had also their origin in the brain, or were somehow dependent on its constitution. About ten years, then, were spent in endeavouring to discover where the general faculties he was in search of were situate. But a century would have been equally inadequate to his success,—and for the most cogent of all reasons,—there are no such faculties. " If there be one excellence or merit in Dr GALL " (said his colleague) for which I admire him more than " for any other, it is for the resolution he now took to abandon all preconceived opinions, and the best established " maxims of the schools, on the subject of human nature; " and to recommence the study of it by observation alone." It must be admitted, nevertheless, that the determination thus eulogized, was too unqualified, and that, in its prosecution Dr GALL was at first drawn into several very material errors. This is neither wonderful, nor greatly to his discredit.

His method was to compare the size and the conformation of the whole head with the favourite occupations or pursuits of individuals. Several curious but partial conclusions were the result; but to these, he found he was under the necessity of admitting there were sundry exceptions,—a fact which convinced him, either that he was not in the right track, or that he had not yet arrived at the truth; for it was a fundamental proposition in his mind, that nature is regular and constant.—" If the eye be the organ of sight, " (said he) vision can never exist without the eye; and it " is the same with the internal organs:—If any faculty be " attached to a particular organ, this organ can never be " wanting, if the faculty manifests itself." In place, therefore, of considering the general configuration of the head, in reference to particular faculties, Dr Gall now sought for a correspondence or coincidence between particular organs and the natural vocations or habitual actions of individuals; that is to say, those occupations and actions for which their faculties and inclinations seemed most to dispose and fit them. In this manner, accordingly, he discovered peculiar developments of the head in various persons who were noted for their excellence in certain professions and pursuits, as those of the mechanician, the mathematician, musicians, sculptors, &c. His observations of this kind were first confined to persons of what may be called partial genius, as, with propriety, supposed most likely to afford well marked organic indications, but they were afterwards extended to cases, in which, from circumstances, there was little danger of being misled by dissimulation or conceit; and ultimately they reached to persons taken indiscriminately from the lower classes, whom he called into his house, and, by various means, excited to such conversation and behaviour as might enable him to become acquainted with their respective characters. The office of physician to the Establishment for the Deaf and Dumb at Vienna, contributed essentially to his opportunities of acquiring information on the subject which now so deeply occupied his mind.

But an error of considerable magnitude still pervaded his investigations,—the consequence, apparently, of the resolution already mentioned not having been corrected by an acquaintance with what are now denominated the Special Faculties; and also of his not attending sufficiently to the fact, that those actions of mankind which he principally contemplated are rather the results of combinations of the faculties and propensities, than the simple product of any one of them by itself. Moreover, it is certain, that his names for the organs, which he discovered, in this manner, to be somehow or other connected with the principal actions and propensities of men, were necessarily defective and incorrect,—a clear proof, we may be sure, of something faulty in his own conceptions. The impropriety of deducing them from the actions to which the supposed organs contributed, and, more especially, where those actions were grossly immoral and illegal, was indeed so obvious and so great, as to bring very general odium on the doctrine which they were meant to illustrate. An organ of theft and of murder, for example, could never be admitted, whilst it was perfectly certain that either of these transgressions might originate in a variety of motives. Although Dr Gall had been able to demonstrate that, in every person who committed them, a certain portion of the brain was peculiarly developed, this never could be allowed to be a proof that the discovered protuberances were the peccant parts. Dr Spurzheim was well aware of the implied absurdity, and seems to be entitled to the merit of having reformed the nomenclature, which he has endeavoured to derive, as much as possible, from the primitive feelings and radical designs or efforts of the faculties. He has acknowledged, too, the extreme difficulty of ascertaining these, in some cases, and would doubtless be thankful for any additional or corrective light which others might bring to bear on the subject. The means employed by Dr Gall, in order to ascertain the organs of the manifestations, are nevertheless unexceptionable,—two principles being considered proved, viz. 1. That the brain, considered as a combination of organs, is the instrument by which the mind, no matter how, manifests itself; and, 2. That the size of the organs is one of the elements from which we are to determine the nature of the functions of the various parts of the brain. He proceeded, then, on the inductive plan recommended by the father of modern philosophy, Lord Bacon, of whom, notwithstanding some errors, which, beyond all question, I imagine, have been abundantly visited by the severity of criticism, he may be justly commended as a faithful and an ardent disciple. Those persons, if, indeed, there are any such, who have carefully studied the immensity of facts by which he has established his principal conclusions in this science, and have either disproved them by more abundant or more correct evidence, or have superseded them by the fruit of wider inquiry, are alone warranted in refusing his claims to this honourable title. The merit of his colleague, on the other hand, it is probable, will be less contested, at least in this country, since the many opportunities which his visit afforded of displaying the endowments of his truly philosophical mind, were calculated most effectively to dissipate the injurious prejudices that were so industriously excited against his name, his character, and his doctrines. The vigour of his intellect refused no toil in the cause of science. The promptitude of his spirit and his zeal secured efficiency of judgment, and patient inquiry, on occasions which might have been thought trivial and unpromising by common observers. His serene, probably because his conscientious reliance on the ultimate triumph of truth, supported him against the obstinacy of ignorance, and the malevolence of systematic error; and to these high endowments, so requisite to the character of a philosopher, especially when waging war with established creeds, he added a simplicity and a gentleness of manners which did not fail to conciliate regard, where his reasoning and his extensive information were urged seemingly in vain. I offer you this testimony, Gentlemen, as that of one who knew not Dr SPURZHEIM, till prejudice, folly, and presumption had accomplished their wonted drudgery of misrepresentation and slander; and I must be allowed to persuade myself, that the candour and the kindliness with which you receive it are incontestible proofs of its accuracy *.

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* To some persons, the following extract from a memorandum of a conversation I once held, for a special purpose, with this gentleman, will appear not only curious, but of some importance, as bearing on a subject on which it has been currently, though most erroneously reported, his views were exceedingly dangerous:—" I took the liberty of making a few remarks on " some parts of his system, as disclosed during his Lectures. My reason " for entering on this topic, was a wish to be better acquainted with his " sentiments on the relation which the Christian religion appeared to him " to bear towards his system. He immediately, and with ease, entered on " the discussion, especially as to the nature of man and the adaptation of " the Christian religion to his real condition, both as liable to err, and as " actually labouring under a conviction of guilt. He seemed perfectly to " comprehend the nature of the self-denial which the Scriptures enjoin. In " his view, there always remains an opposition to duty; and he plainly " alluded to the language of **Paul**, who speaks of a conflict between the " temptations or inclinations to evil, and the sense of Divine authority. He " was quite astonished when he learned that any other opinion was entertained in this country, and suggested that the erroneous notions were the " product of human pride. He censured, at the same time, those writers " and preachers who ascribe all the actions of mankind to one motive only, " and who, in their discourses, address themselves merely to one principle " of action. He would vary his addresses according to the difference observable in individuals,—to one man appealing to the sentiment of charity " or faith, in order to produce certain modifications of behaviour,—to another, " urging the principle which he denominates Self-esteem. Some, again, he " would expect to yield, only on the apparent probability of their receiving " approbation from their fellow creatures; whilst the very lowest of the " species, or the mere animals, as he called them, he was persuaded could " only be influenced through the medium of the lower feelings or propensities. Of the character of **Christ**, he spoke with enthusiastic admiration, " as the only perfect man." May I be allowed to add, that the objection to Phrenology, as founded on Materialism, and leading to infidelity, seems to me one of the most irrational and unjust allegations ever brought against any science. In reality, the perfect, explicit, unqualified correspondence of the doctrines of the system with those portions of the Sacred Scriptures which relate to the character of man, is, to my mind, an incidental, but a powerful evidence of truth, which I confess I have looked for in vain in the proud metaphysics of the schools.

The common division of the faculties of the mind into Will and Understanding, is discarded from this system, at least as modified by Dr SPURZHEIM, together with that notion which refers the faculties of animals to something called *Instinct*, in opposition to the understanding of man. According to him, Will, a term often employed to denote every propensity, ought not to be considered as a particular class of functions distinct from the intellectual faculties; for all the faculties, whether moral or intellectual, so soon as they become active, have their corresponding desires or propensities, and may be excited from the lowest degree of inclination, to the highest degree of passion. But he does not imagine that all the faculties are capable of the same modifications of action. The moral sentiments, for example, are said to produce feelings only, but not to possess either memory or judgment, while the intellectual faculties present both. Farther, it is conceived that there is a difference observable between the feelings, some of which produce a mere propensity, while others, besides a propensity, are accompanied by a peculiar kind of sensation, which must be experienced in order to be understood. Of this last sort are self-love, justice, compassion; some of them are proper to man, others are common to him and the lower animals, as are the faculties to which the name of Propensities is given. Those faculties, again, by which we become acquainted with the external world and the qualities of bodies, Dr SPURZHEIM denominates Knowing Faculties, for want of a better title, and in contradistinction to certain other intellectual powers by which we compare "the relations between the different external bodies, the relations between the external bodies and the internal faculties, and those between the internal faculties themselves," which he styles Reflecting Faculties. The term *Mind* is considered, in this system, as nearly synonymous with *Faculties*.

Here it is requisite to say a word or two, in explanation of the phraseology employed to denote the faculties. This is certainly an innovation, and can be tolerated only on the ground of necessity. It is no doubt fair that the founders of a new science be allowed to avail themselves of every possible combination or invention of words which shall most suitably apply to their subject. Dr SPURZHEIM ingeniously argued for this right of coining terms, particularly compound ones, which the genius of his own language, the German, much more easily admits than English. The termination *ive* is employed to denote *the quality of producing*, and *ness, the abstract* state. These are joined to different roots, as much as possible chosen from the English language; failing this source, from Latin participles in common use; and, in one case, from Greek words. Terms, therefore, which end in *iveness*, signify different propensities, conceived to be peculiar faculties of the mind. They have a strange appearance, it is true, and are often troublesome from their length; but the preciseness of their signification, and the circumstance of their saving much circumlocution, repay the sacrifice of taste, and the toil of pronunciation which they require. Dr SPURZHEIM entered on a particular defence of some of these terms; but, at the same time, declared his anxiety to be put in possession of better, as he had no ambition to gratify by so hazardous an innovation.

Dr SPURZHEIM did not treat of the organs, in the order in which they are said to have been discovered, but according to their situation in the brain, beginning with that which is lowest in the back part of the head, where the cerebellum, or little brain, is situate. The Outline of the System, and the Plate, in the hands of all the members, will afford an intelligible idea of their nature, number, and relative importance; but the assistance of a figure, and some portion of anatomical knowledge, are requisite to a correct acquaintance with their positions.

It is not affirmed that all the organs which have been enumerated are equally demonstrable, or have been with equal certainty determined. On the contrary, several of them were considered somewhat doubtful, and as resting on an insufficient number of observations; a few are merely conjectured to exist; and of these, very vague notions were probably entertained: but the greater part, Dr SPURZHEIM asserted to be established in such a manner as entirely to exclude scepticism, and the apprehension of mistake. I need not tell you, that subsequent inquiries have both confirmed and greatly extended the system. The most cautious inquirer, it might be remarked, is bound to admit the facts brought forward regarding the coincidence between the faculties and certain developments of the brain, indicated by corresponding modifications of the skull, but he is not *therefore* necessitated to go the length of deciding that these developments are the seats of the faculties; or, in other words, the residence of the soul—a question, as already stated, never once agitated in this system. But, even admitting this to be the case, it is perfectly obvious, that the accumulation of such facts contributes essentially to our acquaintance with human nature, and lays the basis of a rational system of physiognomical science. In this point of view, then, were there nothing else to recommend them, the labours of GALL and SPURZHEIM merit high distinction in the records of science.

But it would be unjust, I apprehend, to limit the claims of this doctrine to any rank, however elevated, in physics merely: and I am greatly deceived, if the facilities which it presents for the prosecution of intellectual philosophy—of all those studies, in short, which have the human constitution and character for their object, will not, ere long, be extensively admitted as constituting one of its chief recommendations. Indeed, I think I perceive the dread of this, in the conduct of some of its recent antagonists,—a sort of tremulous anxiety which I confess I have difficulty in believing to proceed so much from a generous love of truth, as a jealousy lest the honours of a declining rival should altogether vanish. The shock which the science of Metaphysics, if such it must be called, has experienced in our own day, might have been expected to occasion a considerable degree of uneasiness on the part of its conscientious votaries, and almost justifies it; because it is as impossible for a human being to be quite insensible to popular opinion, as it would be improper for him if he could: But the pertinacity which continues to idolize systems and creeds, after an experiment of two thousand years duration has shewn them to be unproductive of any real benefit to mankind—and which, in demonstrating its devotedness, does not scruple to disport itself in unmanly slanders and detestable ribaldry, can have no other source than a perverted understanding and a vicious heart. The prostitution of talents, which we have all of us had occasion to witness, in the opposition made to Phrenology, and the frequent exposures of unhappy defects and bad habits, volunteered by some of its enemies, while they neither affect its foundation, nor ruffle the temper of its disciples, are productive of essential, but, it must be allowed, very painful advantages;—they furnish ample materials for the confirmation of its truth, and no less ample motives and opportunities for the exercise of that forbearance and compassion which it is one of its excellencies imperatively to inculcate.

I beg leave to conclude these remarks in the expressions and highly appropriate language of the late Mr Playfair. "Even in matters purely intellectual, the prejudices and "the selfishness, or the vanity of those who pursue them, "not unfrequently combine to resist improvements, and "often engage no inconsiderable degree of talent in drawing back, instead of pushing forward, the machine of

" science. The introduction of methods entirely new, " must often change the relative place of the men engaged " in scientific pursuits; and must oblige many, after de" scending from the stations they formerly occupied, to " take a lower rank in the scale of intellectual advance" ment. The enmity of such men, if they be not ani" mated by a spirit of real candour, and the love of truth, " is likely to be directed against methods by which their " vanity is mortified, and their importance lessened."